

REMARKS

Claims 1, 2, 4-14, and 16-18, as amended, and new claims 19 and 20 are before the Examiner for consideration.

1. The specification and claim 10 are amended to correct the units used for the loading of the ceramic particles on the honeycomb volume. The original units were "g per cc." A cubic centimeter (cc) is very small. The upper limit of 250 g per cc would mean that 250 g (over 0.5 pound [1 lb = 454 g]) of particles would be loaded on that small volume of honeycomb. Those skilled in this art recognize that the use of g per cc is an obvious error in unit expression and that the conventional units for loading on a hollow honeycomb structure are "g per liter." The Examiner so recognizes; see the discussion below in Section 3.

2. The title has been changed to read as it appears on the formal papers of this case rather than in the PCT counterpart. Minor self-evident corrections have been made in claims 4, 16 and 17. The Examiner stated that a copy of the certified copy of the priority document has not been received

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from the International Bureau. The Examiner's attention is directed to the "Notification of Missing Requirements..." mailed June 12, 2002, which acknowledges that the Priority Document was received by the Patent Office.

3. Sections 2 and 3 of the Office Action contain comments about claim 15. Claim 15 is canceled and rewritten as claim 19; in that claim, "is" has been changed to "are" and Jepson claim format has been used to highlight the improvement.

4. Claim 10 was rejected under 35 U.S.C. 112, first paragraph, as failing non-enabled. The Examiner questions the particle loading of 5 to 250 grams per cubic centimeter of honeycomb volume. As discussed in Section 1 above, those loading units were erroneous ones and should be (and now read) g per liter (g/l). The Examiner himself recognizes that the proper units should be 5 to 250 grams per liter of honeycomb volume. No new matter issue is raised; practice according to the MPEP does permits correction of errors when the error is obvious. See MPEP 2163.07:

II. OBVIOUS ERRORS

An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of error in the specification, but also the appropriate correction. *In re Oda*, 443 F.2d 1200, 170 USPQ 268 (CCPA 1971).

The Examiner has recognized here that an error exists and knows that the proper unit should be g/l.

5. Claims 1-15 were rejected under 35 U.S.C. 103(a) as unpatentable over Japanese Published patent Application JP 9-220423 (hereinafter JP '423) in view of European Published Patent Application EP 0 701 859 A1 (hereinafter EP '859). Claim 1 is amended to incorporate the subject matter of claim 3, which has been canceled, and claims 19 and 20 added. Any rejection of these claims on this basis is traversed.

As noted above, the limitation of "an average particle diameter of 2 to 20 μm " from Claim 3 now appears in Claim 1 clearly to distinguish patentably over the art. EP '859 merely discloses the use of zirconia having a particle size of 50 Å to 200 Å ($= 50 \times 10^{-10}$ meter to 200×10^{-10} meter $= 0.005 \times 10^{-6}$ meter to 0.02×10^{-6} meter $= 0.005 \mu\text{m}$ to $0.02 \mu\text{m}$). Indeed, EP '859 is silent not only regarding the criticality of upper average

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particle diameter of 20 μm to minimize the peeling of ceramic particles from the fitter body, but also the criticality of lower average particle diameter of 2 μm (to keep the affinity to ash at a low level), as discussed on page 11, lines 18 to 27 of the specification.

Similarly, the criticality for a BET value of 300 m^2/g or less is not taught or suggested by the references. See the discussion of the reasons for the more preferred BET values in claim 2 on page 8, lines 4 to 8 and 25 to 27 of the specification.

The machine translation of JP '423, as best understood, describes placing a catalyst on a ceramic honeycomb structure used as a diesel filter. To disperse the catalyst, a high surface area support material is first placed on the normal porous cordierite containing honeycomb; see Paragraph [0015]. Examples of this support material are activated alumina and other materials; see Paragraph [0014]. The catalyst is then washcoated onto the high surface area material; see Paragraph [0021].

During the use of diesel filters, carbon particles are deposited and must be burned off periodically. Applicants use

their ceramic particles layer formed on the filter to avoid having any direct contact between the filter and the ash remaining and accumulating after the particulates captured by the filter have been burnt. Thus, the prior art problem of filter melting caused by the reaction and/or penetration at high temperatures between the ash and the filter material is prevented as described by applicants on page 6, line 29, to page 7, line 6, of the specification.

There is no teaching in JP '423 of using a high surface area particulate ceramic material as presently claimed as a coating to prevent the contact of the remaining ash with the ceramic filter.

EP '859 is cited to show heat-resistant ceramic particles having a BET specific surface area of $50 \text{ m}^2/\text{g}$. However, the EP '859 catalyst is one used for decomposing nitrogen oxides by coating the support structure with a Cu-containing zirconia powder and a catalytically active oxide of W, Ga, Ni, Mg, Fe, or Co on a zirconia powder. Again, such material is one used merely as a catalyst support. There is no teaching or suggestion of using the material to prevent ash particles in a diesel filter from reacting with a ceramic support.

In summary, applicants submit that the invention of amended Claims 1 and 2 is not suggested merely by combining the teachings of JP '423 and EP '859. The rejection should be withdrawn.

Claim 20 recites the relationship between the binder and the ceramic particles. Support therefor is found on page 11, lines 14 to 16 of the specification and in original claim 17.

6. Method-of-making claims 16-18 were rejected under 35 U.S.C. 103(a) as unpatentable over JP '423 in view of EP '859 and Watanabe et al. This rejection is traversed.

The two primary references are discussed above; both fail to suggest the product of claim 1 and any method of making it. Watanabe et al. is merely cited to show the physical characteristic of the alumina sol of JP '423 and thus the tertiary reference also fails to relate to the process of claim 16. Accordingly, review and withdrawal of this rejection are requested.

Applicants respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims.

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Should the Examiner deem that any further action by the applicants would be desirable for placing this application in even better condition for issue, the Examiner is requested to telephone applicants' undersigned representative at the number listed below.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Charles A. Wendel', is written over a horizontal line.

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